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| EXAMINER |
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FARAGALLA, MICHAEL A

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| ART UNIT | PAPER NUMBER |
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2617

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02/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/785,407 | Applicant(s) KRISHNAMURTHI ET AL. | |
| | Examiner MICHAEL FARAGALLA | Art Unit 2617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,12,14-16 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,7,12,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 4-6, 14-16, 21 and 24-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendments filed by applicant on 9/26/2008 and 10/17/2008. This action is made **FINAL**.

Response to Arguments

2. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **1, 3, 7, 12, 22 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Frid et al (Patent number: 6,137,791)** in view of **Norefors et al (Patent number: US 6,370,380)** and further in view of **Chaskar et al (Candidate access router discovery; provided by applicant; dated March 2003)**.

Consider **Claims 1, 7, and 12** Frid et al shows a method, as well as a system and an access router comprising:

(a) Authenticating a mobile node by an access router; authorizing the mobile node to participate in a candidate access router discovery procedure (column 4, lines 40-64); (the HLR authenticates the mobile subscribers in order to authorize them to use the network).

(b) Maintaining, by the access routers within a mobile internet environment, a cache of neighboring access routers as candidates (see figures 5 and 6; column 9, lines 22-37); (the access router of the visited network communicate information to the home network, a mobile IP environment in order to retrieve information, therefore, a memory that contains the addresses of other routers in other networks is present).

(c) Populating the cache with cache entries in response to actions initiated by mobile nodes (column 4, lines 36-48); (when a mobile travels into a geographical area, subscription data is stored regarding the mobile station).

(d) Each cache entry is tagged with an identity of an action initiating mobile node (read to be the IP address of the mobile terminal) (column 5, lines 10-15).

(e) Wherein a total number of entries that can be tagged and thus introduced into a cache by any given node is limited (column 4, lines 36-48).

However, Frid et al does not specifically show that the method further comprising maintaining a cache of associated access points, and that the neighboring access routers are handover candidates.

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In related art, Norefors et al show the method further comprising maintaining a cache of associated access points, and that the neighboring access routers are handover candidates (figure 2; column 4, lines 30-50); (the old access point sends a token message to the mobile device indicating the new access point).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Norefors et al into the teaching of Frid et al in order to protect the system against intruders (Norefors et al ; column 1, lines 40-50).

However, Frid et al in view of Norefors et al do not specifically show that maintaining by the access routers capabilities of the neighboring access routers, and their associated access points of the access routers, wherein access routers are considered neighbors only if the access routers comprise access points with overlapping coverage areas.

In related art, Chaskar et al show that maintaining by the access routers capabilities of the neighboring access routers, and their associated access points of the access routers, wherein access routers are considered neighbors only if the access routers comprise access points with overlapping coverage areas (page 3, section 2; page 5, part 4.1; page 6, see figure presented); (the capabilities if the target access router is sent to the mobile terminal in order to be able to hand off the mobile).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Chaskar et al into the teaching of Frid et al and Norefors in order to perform a seamless handover (abstract).

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Consider Claims 22 and 23, as well as an apparatus, Frid et al show a computer program, as well as an apparatus embodied on a computer readable medium, for controlling a processor to implement a method, the method comprising:

(a) Authenticating a mobile node by an access router; authorizing the mobile node to participate in a candidate access router discovery procedure (column 4, lines 40-64); (the HLR authenticates the mobile subscribers in order to authorize them to use the network).

(b) Maintaining, by the access routers within a mobile internet environment, a cache of neighboring access routers as candidates (see figures 5 and 6; column 9, lines 22-37); (the access router of the visited network communicate information to the home network, a mobile IP environment in order to retrieve information, therefore, a memory that contains the addresses of other routers in other networks is present).

(c) Populating the cache with cache entries in response to actions initiated by mobile nodes (column 4, lines 36-48); (when a mobile travels into a geographical area, subscription data is stored regarding the mobile station).

(d) Each cache entry is tagged with an identity of an action initiating mobile node (read to be the IP address of the mobile terminal) (column 5, lines 10-15).

(e) Wherein a total number of entries that can be tagged and thus introduced into a cache by any given node is limited (column 4, lines 36-48).

However, Frid et al does not specifically show that the method further comprising maintaining a cache of associated access points, and that the neighboring access routers are handover candidates.

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In related art, Norefors et al show the method further comprising maintaining a cache of associated access points, and that the neighboring access routers are handover candidates (figure 2; column 4, lines 30-50); (the old access point sends a token message to the mobile device indicating the new access point).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Norefors et al into the teaching of Frid et al in order to protect the system against intruders (Norefors et al ; column 1, lines 40-50).

However, Frid et al in view of Norefors et al do not specifically show that maintaining by the access routers capabilities of the neighboring access routers, and their associated access points of the access routers, wherein access routers are considered neighbors only if the access routers comprise access points with overlapping coverage areas.

In related art, Chaskar et al show that maintaining by the access routers capabilities of the neighboring access routers, and their associated access points of the access routers, wherein access routers are considered neighbors only if the access routers comprise access points with overlapping coverage areas (page 3, section 2; page 5, part 4.1; page 6, see figure presented); (the capabilities if the target access router is sent to the mobile terminal in order to be able to hand off the mobile).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Chaskar et al into the teaching of Frid et al and Norefors in order to perform a seamless handover (abstract).

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Consider **Claim 3**, Frid et al in view of Norefors et al show the method of claim 1, wherein the identity of the mobile node is an international mobile subscriber identity (IMSI) for cellular communication systems, and a network access identifier (NAI) for systems based on Internet Protocol (IP).

Allowable Subject Matter

5. Claims 4-6, 14-16, 21 and 24-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL FARAGALLA whose telephone number is (571)270-1107. The examiner can normally be reached on Mon-Fri 7:30 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Michael Faragalla/
Examiner, Art Unit 2617

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